

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

NATIONAL STARCH AND CHEMICAL)
INVESTMENT HOLDING CORP.,)
PENFORD AUSTRALIA LTD., AND)
PENFORD HOLDINGS PTY,)

Plaintiffs,)

v.)

CARGILL, INC., AND MGP)
INGREDIENTS, INC.,)

Defendants.)

C.A. No. 04-1443 (GMS)

ORDER

On November 2, 2005, the court held a *Markman* hearing for the purpose of construing the disputed terms of U.S. Patent Nos. 6,409,840 (“the ‘840 patent”) and 5,977,454 (“the ‘454 patent”). Both patents are directed toward hybrid maize seeds with high concentrations of a compound known as amylose. In the ‘840 patent, the parties dispute the meaning of the term “apparent amylose content,” and in the ‘454 patent, the parties dispute the meaning of the term “amylose content.” The parties do agree, however, that the same construction should apply to both terms (i.e., “apparent amylose content” and “amylose content” are interchangeable).

The plaintiffs argue that the terms mean “amylose content as determined in the patent.” To be more specific, the plaintiffs point to two columns in each specification that outline a very detailed method, referred to as the Blue Value method, for determining the apparent amylose content of a given sample. *See, e.g.*, ‘454 patent, col. 3, l. 8 thru col. 4, l. 11. The defendants, on the other hand, argue that the disputed terms mean “amylose content measured by colorimetric iodine analysis,” which is a type of analysis that encompasses the Blue Value method and more. In support of their argument, the defendants point to the comments of the examiner in rejecting certain claims of the

‘840 patent during prosecution:

Much of the prior art relies on amylose determination based on iodine affinity such as calorimetric, as in the instant application, or potentiometric. The prior art measures this “apparent” amylose by iodine affinity also. Interpreting the claims in light of the specification, the instant claims must be read as “. . . maize starch having an amylose content of more than 80%, *as measured by colorimetric iodine analysis* . . .” Senti teaches maize starch containing 85% amylose as measured by colorimetric iodine affinity analysis and gel compositions made therewith.

(D.I. 39, Ex. 4 at A67-A68 (emphasis in original).) In response, the applicants amended the original claim language, “amylose content of more than 80%,” to read, “apparent amylose content of more than 90.1%.” (Id. at A73.) The defendants argue that by amending the claims to include the modifier “apparent,” the applicants thereby adopted the examiner’s assertion that “the instant claims must be read as ‘. . . maize starch having an amylose content of more than 80%, *as measured by colorimetric iodine analysis* . . .’” However, in response to the examiner’s rejection, the applicants gave a brief explanation for their amendments:

Broad claims 24, 9, 25 and 13 were rejected under 35 U.S.C. § 102(b) as anticipated by the reference to Senti. The examiner did not provide a copy of the reference but indicated that it was representative of a large body of prior art teaching starch having up to 85% apparent amylose. In order to avoid this reference, Applicants have amended the main claims in this application to indicate that the minimum starch *amylose* content in the starch is 90.1% *as in original claim 10 and 14, which are believed free of the art*. Therefore, it is believed that the enclosed amendments and above remarks are sufficient to place all claims in this application in condition for allowance.

(Id. at A75-A76 (emphasis added).) This passage reveals the applicants’ understanding that their newly-amended claims, which used the term “apparent amylose,” were equivalent to their originally-allowed dependent claims 10 and 14,¹ which only used the term “amylose.” By equating the newly-

¹Original dependent claims 10 and 14 were not technically allowed as written. However, the examiner instructed the applicant that they would be allowable if rewritten as independent claims. (D.I. 39, Ex. 4 at A67.)

amended claims with the originally-allowed claims, the applicants logically excluded any differentiation between “apparent amylose” and “amylose.” Moreover, the defendants’ concession that “apparent amylose content” in the ‘840 patent and “amylose content” in the ‘454 patent are interchangeable only serves to buttress the court’s conclusion that the applicants’ insertion of “apparent” was of little or no significance. Thus, it is clear that the applicants avoided Senti, not by adopting the examiner’s assertion, but by simply raising the percentage of apparent amylose in the claims. In short, the court is not persuaded by the defendants’ argument.

The remaining question is whether the plaintiffs’ proposed construction is correct. In *Chimie v. PPG Industries Inc.*, 402 F.3d 1371 (Fed. Cir. 2005), the Federal Circuit was confronted with a similar claim construction issue. There, the disputed term was “dust-free and non-dusting.” *Id.* at 1375. The specification described a test, known as the DIN 53 583 standard, for determining whether the object of the invention was in fact “dust-free and non-dusting.” *Id.* at 1374-74. Thus, it was by that standard that the district court construed the term. *Id.* at 1375. In affirming the district court, the Federal Circuit explained that “[a]lthough [other tests] may provide alternative means for assessing dust production, it remains that the only articulation of the dustiness of the claimed invention is made with reference to the DIN 53 583 standard.” *Id.* at 1380. Likewise here, although other colorimetric iodine analyses may provide an alternative means for assessing apparent amylose content, it remains that the only articulation of the apparent amylose content of the hybrid maize seeds is with reference to the Blue Value method. The fact that the specification also references prior art using somewhat different methods for measuring apparent amylose content might be evidence that those methods are equivalent to the Blue Value method. But, if the parties insist on arguing over the appropriate measuring stick, the most logical one to choose is the one described

in the specification. Suffice it to say, it would be imprudent, at the very least, for this lay court to foray into the nuances of iodine affinity analysis on its own. That is a job for experts. Therefore, the court will adopt a modified version of the plaintiffs' proposed construction.

IT IS HEREBY ORDERED THAT:

The term "apparent amylose content" as it is used in the '840 patent, and the term "amylose content" as it is used in the '454 patent be construed as "amylose content as determined by the Blue Value method described in column 3, line 6, through column 4, line 7, of the '840 patent, or column 3, line 8, through column 4, line 11, of the '454 patent."

Dated: January 17, 2006

/s/ Gregory M. Sleet
UNITED STATES DISTRICT JUDGE